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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,634	12/20/2000	Akihiro Kondoh	030675-047	4754

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EXAMINER

CHU, CHRIS C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 12/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,634

Applicant(s)

KONDOH, AKIHIRO

Examiner

Chris C. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: in page 2, line 3 of the specification refers a metal flange “12” and in page 16, line 13 of the specification refers front faces “15” which are not referenced in the figures. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

3. The disclosure is objected to because of the following informalities:

On page 2, line 2, “the metal flange” should be --a metal flange--.

On page 2, line 15, missing a sentence or words after “for example.”

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al.

Note Fig. 7 of Abe et al., where he/she shows an electronic apparatus comprising: an electronic circuit board (81); an electrically conductive casing (61 and read column 5, lines 32 ~ 35) for encasing said electronic circuit board (see Fig. 7); a semiconductor element module (53 and 54) electrically connected to said electronic circuit board (see Fig. 7); and a resin fixture (71 and 72) intervening between said electrically conductive casing (61) and said semiconductor element module (53 and 54), said resin fixture (71 and 72) mounted with said semiconductor element module (53 and 54) and fitted to said electrically conductive casing (see Fig. 7).

6. Claims 1, 3, and 7 ~ 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Teruhiro.

Note Fig. 1 of Teruhiro, where he/she shows an electronic apparatus comprising: an electronic circuit board (5); an electrically conductive casing (14) for encasing said electronic circuit board (see Fig. 1); a semiconductor element module (3) electrically connected to said electronic circuit board (see Fig. 1); and a resin fixture (16) intervening between said electrically conductive casing (14) and said semiconductor element module (3), said resin fixture (16)

mounted with said semiconductor element module (3) and fitted to said electrically conductive casing (see Fig. 1).

Regarding claim 3, note Fig. 1 of Teruhiro, where he/she shows said resin fixture (16) has a protrusion (19) formed on its outer wall (see Fig. 2), and wherein said electrically conductive casing (14) has an insertion aperture (18) for receiving said protrusion (see Fig. 2).

Regarding claim 7, note Fig. 1 of Teruhiro, where he/she shows said resin fixture (16) has a metal-plated (21) outer surface (see Fig. 1).

Regarding claim 8, since Teruhiro does not limit the adhesive sheet to any particular or specific adhesive sheet, his/her disclosure encompasses all well known adhesive sheet including "an electrically conductive adhesive sheet."

Regarding claim 9, note Fig. 1 of Teruhiro, where he/she shows said semiconductor element module (3) is an optical semiconductor element module (read abstract).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teruhiro in view of Riichi et al.

Regarding claims 2 and 16, Teruhiro discloses the claimed invention except for said resin fixture has a notched portion formed in its outer wall, and wherein said electrically conductive casing has a hooked portion which fits said notched portion. However, Riichi et al. shows said resin fixture (60) has a notched portion (65) formed in its outer wall (see Fig. 1), and wherein said electrically conductive casing (30) has a hooked portion (32) which fits said notched portion (see Fig. 1). Thus, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to modify Teruhiro by including notched portion and hooked portion as taught by Riichi et al. The ordinary artisan would have been motivated to modify Teruhiro in the manner described above for at least the purpose of providing strong interconnection between the module and the case.

9. Claims 4, 5, 6, 10 ~ 15, and 17 ~ 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teruhiro in view of Riichi et al. as applied to claims 1, 2, and 3 above, and further in view of Suzuki et al.

Teruhiro, as modified, discloses the claimed invention except for said semiconductor element module has a raised portion and a recessed portion and an externally threaded portion formed on its outer surface at a site where said semiconductor element module is fitted to said resin fixture, and wherein said resin fixture has a recessed portion and a raised portion and an internally threaded portion formed in its inner surface at a site where said semiconductor module is mounted, said recessed portion being fitted to said raised portion. However, Suzuki et al. shows said semiconductor element module (1) has a raised portion (part of 2) and a recessed portion (part of 2) and an externally threaded portion (2) formed on its outer surface at a site

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where said semiconductor element module is fitted to said resin fixture (see Fig. 2), and wherein said resin fixture (3) has a recessed portion (part of 5) and a raised portion (part of 5) and an internally threaded portion (5) formed in its inner surface at a site where said semiconductor module is mounted, said recessed portion being fitted to said raised portion (see Fig. 1). Thus, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to further modify Teruhiro by including a raised portion and a recessed portion and an externally threaded portion formed on outer surface of the semiconductor element module and corresponding a recessed portion and a raised portion and an internally threaded portion formed in inner surface of the resin fixture as taught by Suzuki et al. The ordinary artisan would have been motivated to further modify Teruhiro in the manner described above for at least the purpose of providing the desired performance to be consistently obtained.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yingst et al., Musk, Goebel et al., Sasaki et al., Ohkawa et al., and Kameyama disclose a connector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris C. Chu whose telephone number is (703) 305-6194. The examiner can normally be reached on M-F (10:30 - 7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (703) 308-1690. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Chris C. Chu
Examiner
Art Unit 2815

c.c.
December 17, 2001

A handwritten signature in black ink, appearing to read 'Eddie Lee', with a large, sweeping initial 'E'.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800